NORTH DAKOTA DEPARTMENT of HEALTH

2010 CDC Treatment Summaries for Chlamydia, Gonorrhea, Syphilis, Genital Herpes, and Outpatient Oral Regimens for Pelvic Inflammatory Disease[1]

A Quick Reference Guide from the North Dakota Department of Health

INFECTION	RECOMMENDED RX	DOSE / ROUTE	ALTERNATIVES / NOTES
Chlamydia			
Chlamydia in adults, adolescents and children aged ≥8 years	Azithromycin **or** Doxycycline	1 g orally in a single dose 100 mg orally BID x 7 days	Erythromycin base 500 mg orally QID X 7 days or erythromycin ethylsuccinate (EES) 800 mg orally QID x 7 days or ofloxacin 300 mg orally BID x 7 days or levofloxacin 500 mg orally once daily x 7 days.
Chlamydia in pregnancy	Azithromycin **or** Amoxicillin	1 g orally in a single dose 500 mg orally TID x 7 days	Erythromycin base 500 mg orally QID x 7 days or erythromycin base 250 mg orally QID x 14 days or EES 800 mg orally QID x 7 days or EES 400 mg orally QID x 14 days.
Chlamydia in infants - ophthalmia or pneumonia	Erythromycin base **or** Erythromycin ethylsuccinate[2]	50 mg/kg/day orally divided into 4 doses daily x 14 days	Topical antibiotic therapy alone is inadequate for the treatment of chlamydial infections and is unnecessary when systemic treatment is administered. Please see footnote 2 regarding infantile hypertrophic pyloric stenosis.
Gonorrhea			
Uncomplicated infections of the cervix, urethra and rectum in adults, adolescents and children who weigh ≥45 kg	Ceftriaxone ***PLUS*** Azithromycin **or** Doxycycline	250 mg IM in a single dose 1 g orally in a single dose 100 mg orally BID x 7 days	A 400-mg dose of cefixime does not provide as high, nor as sustained, a bactericidal level as that provided by the 250-mg dose of ceftriaxone. A 400-mg dose of cefixime plus 1 g azithromycin orally or doxycycline 100 mg orally BID x 7 days followed by test of cure in 1 week is an alternative therapy[5]. This treatment can be used for expedited partner therapy. Spectinomycin[3] 2 g IM in a single dose or a single-dose cephalosporin regimen (ceftizoxime 500 mg IM or cefoxitin 2 g IM with 1 g probenecid orally or cefotaxime 500 mg IM) or azithromycin 2 g orally in a single dose. Test of cure 1 week after treatment with azithromycin 2 g is recommended. Concerns of *N. gonorrhoeae* developing resistance to macrolides should restrict use of azithromycin as a treatment of gonococcal infection to limited circumstances. Patients with gonococcal infection frequently are coinfected with chlamydia; this finding has led to the recommendation of dual therapy for gonococcal and chlamydia infections, regardless if chlamydia has been ruled out.
Uncomplicated infections of the pharynx	Ceftriaxone ***PLUS*** Azithromycin **or** Doxycycline	250 mg IM in a single dose 1 g orally in a single dose 100 mg orally BID x 7 days	Cefixime, as well as other oral cephalosporins, have limited efficacy for treating gonococcal infections of the pharynx. Although chlamydial coinfection of the pharynx is unusual, coinfection at genital sites sometimes occurs. Therefore, treatment for both gonorrhea and chlamydia is recommended.
Gonorrhea in pregnancy	Pregnant women should not be treated with tetracyclines. A recommended or alternate cephalosporin should be used.		
Gonorrhea in infants - ophthalmia neonatorum	Ceftriaxone	25-50 mg/kg IV or IM in a single dose, not to exceed 125 mg	Topical antibiotic therapy alone is inadequate and is unnecessary if systemic treatment is administered. Infants with gonococcal ophthalmia should be hospitalized and evaluated for signs of disseminated infection.
Syphilis			
Primary, secondary, or early latent syphilis in adults	Benzathine penicillin G	2.4 million units IM in a single dose	Early latent syphilis is latent syphilis of less than one-year duration.
Primary, secondary, or early latent syphilis in children	Benzathine penicillin G	50,000 units/kg IM, up to the adult dose of 2.4 million units in a single dose	
Early syphilis in non-pregnant adults & adolescents allergic to penicillin	Doxycycline **or** Tetracycline	100 mg orally BID x 14 days 500 mg orally QID x 14 days	Limited studies suggest that ceftriaxone is effective for treating early syphilis, but the optimal dose and duration have not been defined. Some specialists recommend 1 g daily either IM or IV for 8-10 days. Azithromycin, single 2 g oral dose, is effective for treating early syphilis but should be used with caution due to association of resistance to *T. pallidum*. **Close follow-up of persons receiving alternative therapies is essential.**

INFECTION	RECOMMENDED RX	DOSE / ROUTE	ALTERNATIVES / NOTES
Syphilis (cont.)			
Early syphilis in pregnancy	Pregnant women should be treated with the penicillin regimen appropriate for their stage of infection.		Pregnant women who are allergic to penicillin should be desensitized and treated with penicillin.
Late latent syphilis or latent syphilis of unknown duration in adults	Benzathine penicillin G 7.2 million units total, administered as 3 doses of 2.4 million units IM each at 1-week intervals		For non-pregnant persons allergic to penicillin, doxycycline 100 mg orally BID may be administered for 28 days or tetracycline 500 mg orally QID x 28 days. **Close follow-up of persons receiving alternative therapies is essential.**
Late latent syphilis or latent syphilis of unknown duration in children	Benzathine penicillin G 50,000 units/kg IM, up to the adult dose of 2.4 million units, administered as 3 doses at 1-week intervals (total 150,000 units/kg up to the adult total dose of 7.2 million units)		
Neurosyphilis			Consult the 2010 STD Treatment Guidelines (MMWR Vol 59, No. RR-12).
Genital Herpes			
First clinical episode of genital herpes	Acyclovir **or** Acyclovir **or** Famciclovir **or** Valacyclovir	400 mg orally TID x 7-10 days 200 mg orally 5 times a day x 7-10 days 250 mg orally TID x 7-10 days 1 g orally BID x 7-10 days	Treatment may be extended if healing is incomplete after 10 days of therapy.
Episodic therapy for recurrent infection	Acyclovir **or** Acyclovir **or** Acyclovir **or** Famciclovir **or** Famciclovir **or** Famciclovir **or** Valacyclovir **or** Valacyclovir	400 mg orally TID x 5 days 800 mg orally BID x 5 days 800 mg orally TID x 2 days 125 mg orally BID x 5 days 1000 mg orally BID x 1 day 500 mg once, followed by 250 mg BID x 2 days 500 mg orally BID x 3 days 1 g orally once a day x 5 days	Treatment should be initiated during the prodrome or within one day after onset of lesions. The patient should be provided with a supply of drug or a prescription for the medication with instructions to initiate treatment immediately when symptoms begin.
Daily suppressive therapy for recurrent infection	Acyclovir **or** Famciclovir **or** Valacyclovir **or** Valacyclovir	400 mg orally BID 250 mg orally BID 500 mg orally once a day 1 g orally once a day	Valacyclovir 500 mg once a day may be less effective than other valacyclovir or acyclovir dosing regimens in patients who have very frequent recurrences (i.e., ≥10 episodes per year).
Pelvic Inflammatory Disease (PID)			
Oral treatment[4]	Ceftriaxone **or** Cefoxitin With Probenecid **or** other parenteral 3rd generation cephalosporin (e.g., ceftizoxime or cefotaxime) **PLUS** Doxycycline *With or without* Metronidazole	250 mg IM in a single dose 2 g IM in a single dose 1 g orally administered concurrently in a single dose 100 mg orally BID x 14 days 500 mg orally BID x 14 days	For women with PID of mild or moderate severity, parenteral and oral therapies appear to have similar clinical efficacy. The decision of whether hospitalization is necessary should be based on the discretion of the health-care provider. Patients who do not respond to oral therapy within 72 hours should be reevaluated to confirm the diagnosis and should be administered parenteral therapy on either an outpatient or inpatient basis. Doxycycline should be included with any third generation cephalosporin. This regimen can be given with or without metronidazole 500 mg orally BID x 14 days.

Complete copies of the 2010 treatment guidelines are available from the North Dakota Department of Health, Division of Disease Control at (701) 328.2378.

[1] **Centers for Disease Control and Prevention. Sexually Transmitted Diseases Treatment Guidelines, 2010. MMWR 2010;59(No. RR-12).**
[2] **An association between oral erythromycin and infantile hypertrophic pyloric stenosis has been reported in infants aged <6 weeks who were treated with this drug. Infants treated with erythromycin should be followed for signs and symptoms of idiopathic hypertrophic pyloric stenosis (IHPS).**
[3] **Spectinomycin is currently not available in the United States.**
[4] **Parenteral treatment, along with diagnosis and other management guidelines, are addressed in the 2010 treatment guidelines.**
[5] **Centers for Disease Control and Prevention. Update to CDC's STD Treatment Guidelines, 2010: Oral Cephalosporins No Longer a Recommended Treatment for Gonococcal Infections. MMWR 2012; 61(31); 590-594.**